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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,476	05/07/2004	David B. Webb	2033	3475
31424	7590	06/30/2005	EXAMINER	
BABCOCK IP LLC			WIMER, MICHAEL C	
24154 LAKESIDE DRIVE			ART UNIT	
LAKE ZURICH, IL 60047			PAPER NUMBER	
			2828	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EL

Office Action Summary	Application No. 10/709,476	Applicant(s) WEBB ET AL.	
	Examiner Michael C. Wimer	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 24-26 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/7/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 appears to be redundant because it recites absorber at the top and bottom of the reflector twice.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,4,5 and 9-12, are rejected under 35 U.S.C. 102(b) as being anticipated by Bishop (2421593).

Regarding Claims 1,4,5 and 9-12, Bishop shows a rotatable antenna comprising a stationary, vertical antenna element 10, an RF parabolic reflector 25, radome 21, fixed feeder 12, a metal and arranged as claimed.

5. Claims 1,2,9,11,12,17,18,21 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Fletcher et al. (3949404).

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Regarding Claims 1,2,9,11,12,17,18,21 and 27, Fletcher et al. show a rotatable antenna with a stationary element 10, rotatable reflector 12 arranged for rotating around the vertical antenna axis (e.g., scan axis), motor 19 and its implied control circuit, gear 18,17 for driving the reflector 12, feeder 13, and used in a radar system, where a transceiver is implied, all arranged as claimed.

6. Claims 1,5 and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen (2973518).

Jensen shows a corner, parabolic reflector 10,23 rotatable about the axis of the fixed antenna element 11, all arranged as claimed.

7. Claims 1,5,9-12,14,16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatkin (3064258).

Regarding the claims, Hatkin shows a rotatable antenna where the reflector S rotates about the vertical axis of the fixed antenna 1, where the antenna is used in a radar system having a duplexer 6 connecting the transmitter 7 and receiver 8 and the signal strength is measured in order to fix the antenna thereon, all arranged as claimed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop, Fletcher et al., Jensen or Hankin, as cited above, in view of Knop et al. (4626863).

No absorber material is used in the primary reference devices. Thus, Knop et al. are cited as resolving the level of ordinary skill in the antenna art and teaches the use of absorber material 31 about each reflector 10,13 in the reflector system, as needed in order to control the radiation pattern. It would have been obvious to the skilled artisan to employ absorber, as needed, in order to control and shape the radiation pattern as desired in a particular application.

10. Claims 6-8,22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher et al. (3949404) in view of Jasik et al (3757342).

Fletcher et al. do not show a printed circuit antenna. Thus, Jasik et al are cited as resolving the level of ordinary skill in the antenna art and as evidence of obviousness, and teaches the antenna arrangement mounted on a printed circuit where the elements are formed as claimed. It would have been obvious to the skilled artisan to employ such a printed antenna in lieu of the antenna in Fletcher et al. in order to provide an easily manufactured antenna array. Jasik et al. also show the tuning circuit 41.

11. Claims 6-9 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop, Fletcher et al., Jensen or Hankin, as cited above, in view of Brady et al. (6320509).

The primary references cited above show all claimed structure of Claim 1 as set forth. No teaching or suggestion of various shaped curves for the reflector

appears in the primary references. Thus, Brady et al. are cited as evidence of obviousness and as resolving the level of ordinary skill in the antenna art and suggests many shapes for the reflector used with the printed circuit antenna in col. 6, third paragraph. It would have been obvious to employ any suggested shape of Brady et al. for the reflector in the primary reference devices in order to provide a particular beam shape.

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher et al. in view of Anderson et al. (4260992).

As noted above, Fletcher et al. show all structure recited in Claim 21, but do not show a radome covering the arrangement. Thus, Anderson is cited to show a radome 40 surrounding the rotatable reflector 20 and coupled to the fixed antenna. It would have been obvious to the skilled artisan to employ a radome for environmental protection.

Allowable Subject Matter

13. Claims 24-26 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (571) 272-1833. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun O. Harvey can be reached on (571) 272-1835. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Wimer
Primary Examiner
Art Unit 2828

MCW
6/8/2005